

PANE

**QUALITY ASSURANCE DATA REPORT**

OCTOBER, 1988

Arkansas Chemical

Delivery Order Number 7445-02-008

OSC: Mr. Mark Pane

433405



# PURCHASE ORDER SEARCH

VENDOR: 68601  
ETC FINDLAY

P/O # J05359-041793-  
P/O DATE 09/02/88  
REQUESTOR KEN WOELK  
APPROVAL TOM O'HARA

( ) -  
P/O TOTAL

\$2,500.00

DEL DATE 09/02/88  
CONFIRMED 09/02/88

QTY	PART NO	DESCRIPTION	PRICE	ACCT #
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WASTE WATER DISPOSAL ANALYSIS ON  
2 QT. SAMPLE. RESULTS NEEDED BY  
8/29/88  
COST \$2,500.00  
NOT TO EXCEED

1 NONE

2,500.00

650

# ANALYTICAL REPORT

Findlay Laboratory, A Division of  
Environmental Testing and Certification Corp.  
16406 U.S. Route 224 East  
P.O. Box 1404  
Findlay, Ohio 45839-1404



**ETC - FINDLAY LABORATORY**

**CLIENT:** USEPA Region I  
Newark, NJ

**ATTN:** J. Copus  
Mark Pane, OSC  
J. Clayton

**PROJECT NUMBER:** 5359E

**SAMPLE TYPE:** Liquid

**ANALYSIS PERFORMED:**

Wastewater Treatment Disposal

(Sample: 36)

**DATE COMPLETED:** 8/29/88

**DATE RECEIVED:** 8/25/88

This report is "PROPRIETARY AND CONFIDENTIAL" and delivered to, and intended for the exclusive use of the above named client only. Environmental Testing and Certification Corp. assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than the above named client.

The analyses and data interpretation that form the basis of this report was prepared under the direct supervision and control of the undersigned who is solely responsible for the contents and conclusions therein.

Reviewed and  
Approved by:

  
R. J. Schock, Mgr.-ETC Findlay Laboratory

8/30/88  
Date

PROJECT 5359ESUMMARY REPORT OF ANALYTICAL SERVICES1. INTRODUCTION

Environmental Testing & Certification Corp. (ETC) Findlay Laboratory received samples from O.H. Materials Corp. These samples were acquired by their technical personnel and transferred to the laboratory complete with a chain-of-custody record, a copy of which is attached for reference. These samples were composited and analyzed for Wastewater Disposal parameters.

2. ANALYTICAL METHODOLOGYTotal Phenols

Samples were prepared and analyzed according to EPA Test Methods for Chemical Analysis of Water and Wastes; EPA 600/4-79-020, Method 420.1, Phenolics, Total Recoverable, Spectrophotometric, Manual 4-AAP with Distillation.

Metals

Samples were prepared and analyzed according to USEPA Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW-846, 2nd edition, July 1982. Samples were prepared by Method 3010, 3030, 3050, or 1310 as appropriate for the following metals: arsenic, barium, cadmium, total chromium, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc. Sample analyses for these metals were performed according to Method 6010, Inductively Coupled Plasma Method. Samples were prepared and analyzed for hexavalent chromium according to Method 7196. Mercury was prepared and analyzed by Method 7470, Manual Cold Vapor Techniques.

Density

Densities were determined by either ASTM Method D1298-90 for liquids or by Method 213E for solids, Standard Methods for the Examination of Water and Wastewater, 16th edition, 1985.

Total Organic Carbons

Samples were prepared and analyzed according to EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 2nd Edition, 1984, Method 9060, Total Organic Carbon (TOC).

PROJECT 5359ESUMMARY REPORT OF ANALYTICAL SERVICESViscosity

Organic liquids were analyzed using a Brookfield viscometer according to ASTM D2983, Volume 5.03, 1983.

GC/MS Volatile Organic Analyses and Screens

Volatile analysis of the samples are performed using methods based on USEPA Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW-846, July 1982; Method 8240, GC/MS Methods for Volatile Organics.

GC/MS Semi-Volatile Organic Analyses and Screens

Acid and base neutral extractables are prepared and analyzed using methods based on USEPA Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW-846, July 1982; Method 8270, GC/MS Methods for Semi-Volatile Organics.

Sulfides

Sulfide analyses were performed according to EPA 600/4-84-038, Characterization of Hazardous Waste Sites-A Methods Manual, May 1984; Section 17, G.1.2. Determination of Sulfide in Solid Phase Hazardous Waste Disposal Site Samples.

Flash Point (Pensky-Martens)

Flash points were performed according to the procedure specified in USEPA Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW-846, 2nd edition, July 1982; Method 1010, Pensky-Martens Closed-cup Method.

Solids

Percent solids for the samples were determined according to EPA Methods for Chemical Analysis of Water and Wastes; EPA 600/4-79-020, Methods 160.1, 160.2 and/or 160.3.

pH

Samples were analyzed according to Method 9040; USEPA SW-846, 2nd edition, July 1982.

PROJECT 5359ESUMMARY REPORT OF ANALYTICAL SERVICESTotal Cyanides, Water and Wastewater

Water and wastewater samples were analyzed for Total Cyanide content by USEPA Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW-846, 2nd edition, July 1982 (Revised April 1984); Method 9010, Total and Amenable Cyanide.

Acidity

The acidity of the liquid samples were determined by USEPA 600/4-79-020 (Revised March 1983); Method 305.1, Acidity.

PCBs - Water and Wastewater

The polychlorinated biphenyl content of the liquid samples (except oil samples) was determined by USEPA 600/4-82-057, July 1982, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater; Method 608, Organochlorine Pesticides and PCBs.

3. ANALYTICAL RESULTS

The following tables detail the analytical results for sample #5359E-36.

PROJECT 5359ETABLE 1 - WASTEWATER TREATMENT DISPOSAL ANALYSIS

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

Parameter	Result
Color	Yellow
Density	1.08 g/cm <sup>3</sup>
Flash Point, PM, CC	75°C
Amenable Cyanide	< 0.2 mg/L
Total Cyanide	< 0.2 mg/L
Total Sulfide	< 10 mg/L
Total Phenols	< 0.5 mg/L
pH Test	3.6 pH units
Total Suspended Solids	65,800 mg/L
Total Dissolved Solids	164 mg/L
Total Solids	66,000 mg/L
Viscosity, Brookfield	3.0 cpu
Total Acidity	300 mg/L CaCO <sub>3</sub>
Total Organic Carbon	65,900 mg/L

PROJECT 5359ETABLE 2 - VOLATILE ORGANICS

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

=====  
Compound Concentration (mg/L)  
=====

Acrolein	BDL*
Acrylonitrile	BDL*
Benzene	BDL
Bromomethane	BDL
Bromodichloromethane	BDL
Bromoform	BDL
Carbon Tetrachloride	BDL
Chlorobenzene	BDL
Chloroethane	BDL
2-Chloroethylvinyl ether	BDL
Chloroform	BDL
Chloromethane	BDL
Dibromochloromethane	BDL
1,2-Dichlorobenzene	BDL
1,3-Dichlorobenzene	BDL
1,4-Dichlorobenzene	BDL
1,1-Dichloroethane	BDL
1,2-Dichloroethane	BDL
1,1-Dichloroethene	BDL
Trans-1,2-Dichloroethene	BDL
1,2-Dichloropropane	BDL
Cis-1,2-Dichloropropene	BDL
Trans-1,3-Dichloropropene	BDL
Ethylbenzene	BDL
Methylene Chloride	BDL
1,1,2,2-Tetrachloroethane	BDL
Tetrachloroethene	BDL
1,1,1-Trichloroethane	BDL
1,1,2-Trichloroethane	BDL
Trichloroethene	BDL
Trichlorofluoromethane	BDL
Toluene	BDL
Vinyl Chloride	BDL
Total Xylenes	BDL

\*Limit of Detection = 1,000 mg/L ppm (parts-per-million)

Limit of Detection = 100 mg/L ppm (parts-per-million)

BDL = Below Detection Limit

PROJECT 5359ETABLE 3 - ADDITIONAL VOLATILE HSL COMPOUNDS

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

Compound	Concentration (mg/L)	Detection Limit (mg/L)
Acetone	BDL	500
2-Butanone (MEK)	BDL	100
Carbon Disulfide	BDL	100
Ethyl ether	BDL	100
Ethylene Dibromide	BDL	100
2-Hexanone	BDL	100
4-Methyl-2-Pentanone (MIBK)	BDL	100
Styrene	BDL	100
Tetrahydrofuran	BDL	100
1,1,2-Trichloro-1,2,2- trifluoroethane (Freon 113)	BDL	100
Vinyl Acetate	BDL	500

mg/L = ppm (parts-per-million)  
BDL = Below Detection Limit

PROJECT 5359ETABLE 4 - VOLATILE SCREEN RESULTS

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

=====  
Compounds=====  
Concentration (mg/L)  
=====

No chromatographic peaks were present with an area greater than  
25% of the internal standards

mg/L = ppm (parts-per-million)

PROJECT 5359ETABLE 5 - BASE/NEUTRAL COMPOUNDS

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
 ETC SAMPLE NUMBER: 5359E-36

Compound	Concentra- tion (mg/L)	Compound	Concentra- tion (mg/L)
Aenaphthene	BDL	3,3'-Dichloro-	
Acenaphthylene	BDL	benzidine	BDL
Anthracene	BDL	Diethylphthalate	BDL
Benzidine	BDL	Dimethylphthalate	BDL
Benzo(a)anthracene	BDL	2,4-Dinitrotoluene	BDL
Benzo(b)fluoranthene	BDL	2,6-dinitrotoluene	BDL
Benzo(k)fluoranthene	BDL	Diethylphthalate	BDL
Benzo(a)pyrene	BDL	1,2-Diphenyl	
Benzo(g,h,i)perylene	BDL	hydrazine	BDL
Bis(2-chloroethyl)-		Fluoranthene	BDL
ether	BDL	Fluorene	BDL
Bis(2-chloroethoxy)-		Hexachlorobenzene	BDL
methane	BDL	Hexachlorobutadiene	BDL
Bis(2-ethylhexyl)-		Hexachloroethane	BDL
phthalate	BDL	Hexachlorocyclo-	
Bis(2-chloroiso-		pentadiene	BDL
propyl)ether	BDL	Indeno-(1,2,3-cd)	
4-Bromophenyl phenyl		pyrene	BDL
ether	BDL	Isophorone	BDL
Butyl benzyl		Naphthalene	BDL
phthalate	BDL	Nitrobenzene	BDL
2-Chloronaphthalene	BDL	N-Nitrosodi-n-	
4-Chlorophenyl phenyl		propylamine	BDL
ether	BDL	N-Nitrosodiphenyl-	
Chrysene	BDL	amine	BDL
Dibenzo(a,h)anthracene	BDL	Phenanthrene	BDL
Di-n-butylphthalate	BDL	Pyrene	BDL
1,3-Dichlorobenzene	BDL	1,2,4-Trichloro-	
1,4-Dichlorobenzene	BDL	benzene	BDL
1,2-Dichlorobenzene	BDL		

Limit of Detection = 100 mg/L ppm (parts-per-million)  
 BDL = Below Detection Limit

PROJECT 5359ETABLE 6 - ACID EXTRACTABLE

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

Compound	Concentration (mg/L)
4-Chloro-3-Methylphenol	BDL
2-Chlorophenol	BDL
2,4-Dichlorophenol	BDL
2,4-Dimethylphenol	BDL
2,4-Dinitrophenol	BDL
2-Methyl-4,6-Dinitrophenol	BDL
2-Nitrophenol	BDL
4-Nitrophenol	BDL
Pentachlorophenol	BDL
Phenol	BDL
2,4,6-Trichlorophenol	BDL

Limit of Detection = 100 mg/L ppm (parts-per-million)  
BDL = Below Detection Limit

PROJECT 5359ETABLE 7 - ADDITIONAL SEMI-VOLATILE HSL COMPOUNDS

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

Compound	Concentration (mg/L)
Aniline	BDL
Benzyl Alcohol	BDL
4-Chloroaniline	BDL
Dibenzofuran	BDL
2-Methylnaphthalene	BDL
2-Methylphenol	BDL
4-Methylphenol	BDL
2-Nitroaniline	BDL
3-Nitroaniline	BDL
4-Nitroaniline	BDL
2,4,5-Trichlorophenol	BDL

Limit of Detection = 100 mg/L ppm (parts-per-million)  
BDL = Below Detection Limit

PROJECT 5359ETABLE 8 - SEMI-VOLATILE SCREEN RESULTS

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

Compounds	Concentration (mg/L)
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Non-priority pollutant unidentified compounds	1,600
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Limit of Detection = 100 mg/L ppm (parts-per-million)

PROJECT 5359ETABLE 9 - PESTICIDES AND PCBS

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

Compound	Concentration (ug/L)	Detection Limit (ug/L)
Aldrin	BDL	0.1
BHC-alpha	BDL	0.1
BHC-beta	BDL	0.1
BHC-gamma	BDL	0.1
BHC-delta	BDL	0.1
Chlordane	BDL	1.0
4,4'-DDD	BDL	0.1
4,4'-DDE	BDL	0.1
4,4'-DDT	BDL	0.1
Dieldrin	BDL	0.1
Endosulfan-alpha	BDL	0.1
Endosulfan-beta	BDL	0.1
Endosulfan sulfate	BDL	0.1
Endrin	BDL	0.1
Endrin aldehyde	BDL	0.1
Heptachlor	BDL	0.1
Heptachlor expoxide	BDL	0.1
Toxaphene	BDL	1.0

POLYCHLORINATED BIPHENYLS

Aroclor 1016	BDL	1.0
Aroclor 1221	BDL	1.0
Aroclor 1232	BDL	1.0
Aroclor 1242	BDL	1.0
Aroclor 1248	BDL	1.0
Aroclor 1254	BDL	1.0
Aroclor 1260	BDL	1.0

ug/L = ppb (parts-per-billion)  
BDL = Below Detection Limit

PROJECT 5359ETABLE 10 - TOTAL METALS FOR WASTEWATER DISPOSAL

SAMPLE IDENTIFIER: Liquid Composite of Four Tanks  
ETC SAMPLE NUMBER: 5359E-36

Compound	Concentration (mg/L)	Detection Limit (mg/L)
Arsenic	BDL	0.3
Barium	BDL	0.1
Cadmium	BDL	0.1
Chromium (total)	32.8	0.1
Chromium (hexavalent)	20.4	0.1
Copper	0.11	0.1
Iron	1.52	0.1
Lead	0.91	0.1
Manganese	0.36	0.1
Mercury	BDL	0.05
Nickel	0.15	0.1
Selenium	BDL	0.1
Silver	BDL	0.1
Thallium	BDL	0.5
Zinc	1.75	0.1

mg/L = ppm (parts-per-million)  
BDL = Below Detection Limit



OHM

O.H. Materials Corp.  
16406 U.S. Route 224 East  
Findlay, Ohio 45839-0551  
419-423-3526

## CHAIN-OF-CUSTODY RECORD

No 40068

PROJECT LOCATION		NAME OF CLIENT		PROJECT TELEPHONE NO.	PROJECT NUMBER					
Newark, NJ		USEPA Region I		201-589-0766	5359 E					
ITEM NUMBER	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINERS	DESCRIPTION	TRANSFER NUMBER & CHECK						
1	4529-36	2-1qt. jars	CLEAR YELLOW LIQUID - <del>MATERIAL</del> <del>FROM</del> COMPOSITE OF LIQUID IN FOUR TANKS ON SITE - 8-24-88 1530 JC							
			3- DAY TURN AROUND (Results Monday 8-29-88)							

Person Responsible for sample	Affiliation	Date	Time	TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	ACCEPTED BY	DATE	TIME
T. WANCHIK	OHM	8/24	1500	1	1	Birkman	Larry Birkman	8/25	1500
Purpose of analysis (use back of front sheet if necessary) AQUEOUS DISPOSAL ANALYSIS (WASTEWATER TREATMENT)				2					
				3					
				4					
				5					
				6					
				7					

PROJECT 5359EQC SUMMARY

## A. Conventional &amp; Spike Recovery:

## Hexavalent Chromium:

Method Spike	102
Matrix Spike	No recovery due to dilution of sample

## Total Cyanide:

Method Spike	97.2
Matrix Spike	91.8
Matrix Spike Duplicate	69.6

## Total Phenols:

Method Spike	104
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## Total Sulfides:

Method Spike	80.0
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## B. GC/MS Priority Pollutant Volatile Organics:

BFB Tune File: See attached  
Surrogate Recoveries:

<u>Sample Number</u>	<u>Benzene-d6</u>	<u>Bromofluoro- benzene</u>	<u>Toluene-d8</u>
Blank	109	99.5	98.8
5359E-36	117	107	107
5359E-36 Mtx Spk	113	106	105
5359E-36 Mtx Spk Dup	116	104	107

## Volatile Organics Spike Recoveries: (In Percentages)

	<u>5359E-36 Matrix Spike</u>	<u>5359E-36 Matrix Spike Dup</u>
Benzene	110	109
Bromodichloromethane	99.4	98.6
Bromoform	100	92.6
Carbon Tetrachloride	102	103
Chlorobenzene	105	104
2-Chloroethylvinyl ether	91.9	83.2
Chloroform	101	101
Dibromochloromethane	98.5	95.0

**PROJECT 5359E****QC SUMMARY (CONTINUED)****Volatile Organics Spike Recoveries: (In Percentages)**

	<b><u>5359E-36</u></b> <b><u>Matrix Spike</u></b>	<b><u>5359E-36</u></b> <b><u>Matrix Spike Dup</u></b>
1,1-Dichloroethane	101	99.8
1,2-Dichloroethane	104	104
1,1-Dichloroethene	104	103
trans-1,2-Dichloroethene	103	101
1,2-Dichloropropane	100	99.0
cis-1,3-Dichloropropene	99.1	93.7
trans-1,3-Dihloropropene	91.2	87.5
Ethylbenzene	124	116
Methylene chloride	83.6	85.8
1,1,2,2-Tetrachloroethane	99.1	96.7
Tetrachloroethene	100	98.7
1,1,1-Trichloroethane	105	104
1,1,2-Trichloroethane	93.8	94.4
Trichloroethene	102	102
Trichlorofluoromethane	108	108
Toluene	109	108
Benzene-d6 (SURRE)	113	109
Bromofluorobenzene (SURRE)	106	98.9
Toluene-d8 (SURRE)	105	100

**C. GC/MS Priority Pollutant Semi-volatile Organics:**

DFTPP Tune File: See Attached  
Percent Surrogate Recoveries

<b><u>Sample</u></b> <b><u>Number</u></b>	<b><u>2-Fluoro-</u></b> <b><u>phenol</u></b>	<b><u>Phenol</u></b> <b><u>d5</u></b>	<b><u>Nitro</u></b> <b><u>Benzene</u></b> <b><u>d5</u></b>	<b><u>2-Fluoro-</u></b> <b><u>biphenyl</u></b>	<b><u>2,4,6-Tri-</u></b> <b><u>bromo-</u></b> <b><u>phenol</u></b>	<b><u>p-Ter-</u></b> <b><u>phenyl</u></b> <b><u>d14</u></b>
5359E-Blank	88.2	61.6	101	106	109	114
5359E-Spike	97.5	73.9	96.2	102	110	106
5359E-36	110	68.4	99.7	104	116	120
5359E-36 Mtx Spk	121	85.6	101	101	125	113
5359E-36 Mtx Spk Dup	96.6	68.1	101	101	114	110

PROJECT 5359EQC SUMMARY (CONTINUED)

## Semi-Volatile Organics Analysis (Percentages)

	<u>5359E-36</u>	<u>5359E-36</u> <u>Mtx Spk</u>	<u>5359E-36</u> <u>Mtx Spk Dup</u>
1,4-Dichlorobenzene	94.7	87.0	91.0
2-Chlorophenol	122	139	128
Phenol	74.5	89.4	69.4
N-Nitroso-di-n-propylamine	100	106	106
1,2,4-Trichlorobenzene	94.5	92.7	94.5
4-Chloro-3-Methylphenol	123	144	128
Acenaphthene	107	109	107
2,4-Dinitrotoluene	85.2	97.3	93.6
Lindane	60.0	51.1	46.9
Di-n-butylphthalate	91.1	78.9	75.9
Pentachlorophenol	90.2	103	96.7
Pyrene	102	100	100
4,4'-DDT	91.7	96.9	94.8

## D. Pesticides, Herbicides: Percent Spike Recoveries

Method Spike

a-BHC	81.7
b-BHC	91.1
Lindane	86.7
d-BHC	95.3
Heptachlor	88.5
DDE	99.1
DDT	106
DDD	93.6
Endosulfan I	80.6
Aroclor 1248	73.1

PROJECT 5359EQC SUMMARY (CONTINUED)

## E. Metals: Percent Spike Recoveries

	<u>Method Spike</u>	<u>6295E-0004 Matrix Spike</u>	<u>6295E-0004 Mtx Spk Dup</u>
Arsenic	101	113	108
Barium	89.0	94.1	94.9
Cadmium	91.8	104	103
Chromium	92.7	102	105
Copper	97.0	100	106
Lead	79.2	91.1	103
Nickel	87.2	94.5	95.9
Selenium	83.3	93.4	105
Silver	228*	137*	109
Thallium	88.3	104	104
Zinc	76.4	96.0	109

\*Out of control

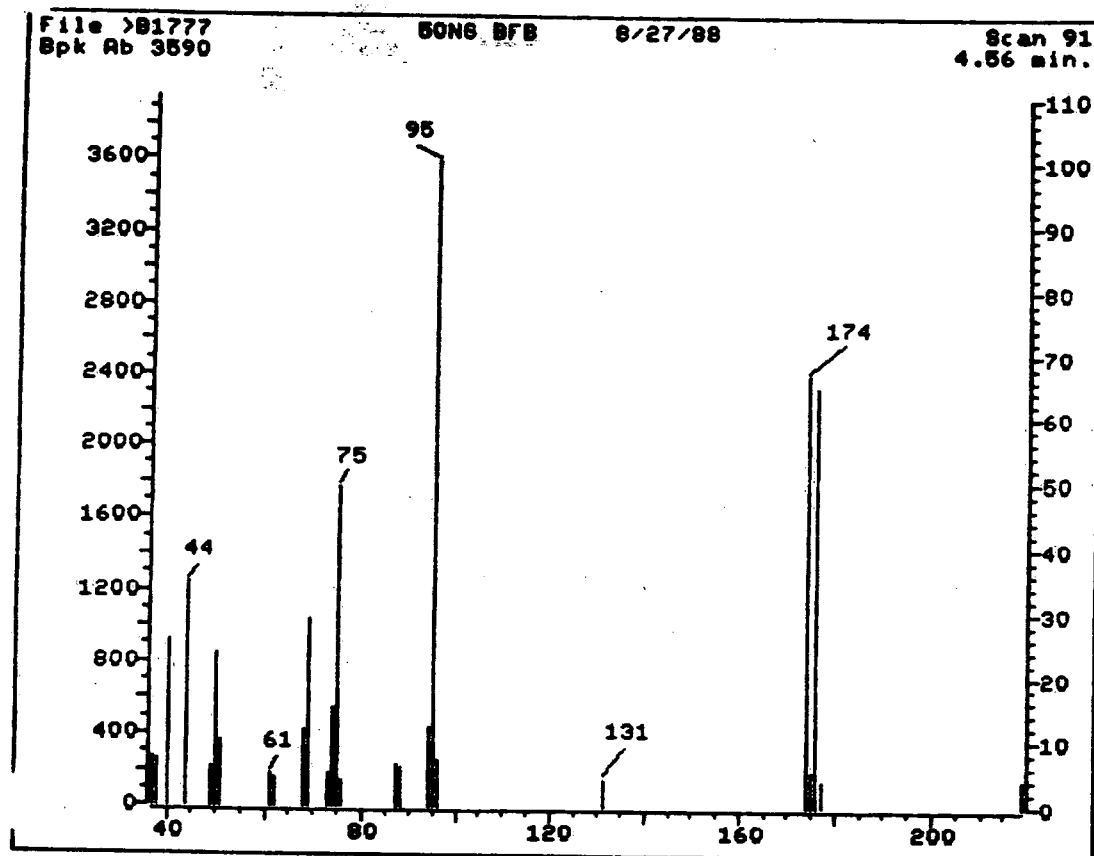


TABLE 2: METHOD PERFORMANCE DATA (QR21)

GC/MS Tuning Data - Bromofluorobenzene (BFB) for Volatiles Analysis

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	23.65	23.65	Ok
75	30-60% of mass 95	49.22	49.22	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.96	6.96	Ok
173	Less than 1% of mass 95	0.00	0.00	Ok
174	Greater than 50% of mass 95	66.71	66.71	Ok
175	5-9% of mass 174	5.43	8.14	Ok
176	95-101% of mass 174	64.87	97.24	Ok
177	5-9% of mass 176	4.15	6.40	Ok

Injection Date: 08/27/88

Analyst: LR

Injection Time: 14:58

Processor: LR

Run No: &gt;B1777

QC Batch: \_\_\_\_\_

Spectrum No: \_\_\_\_\_

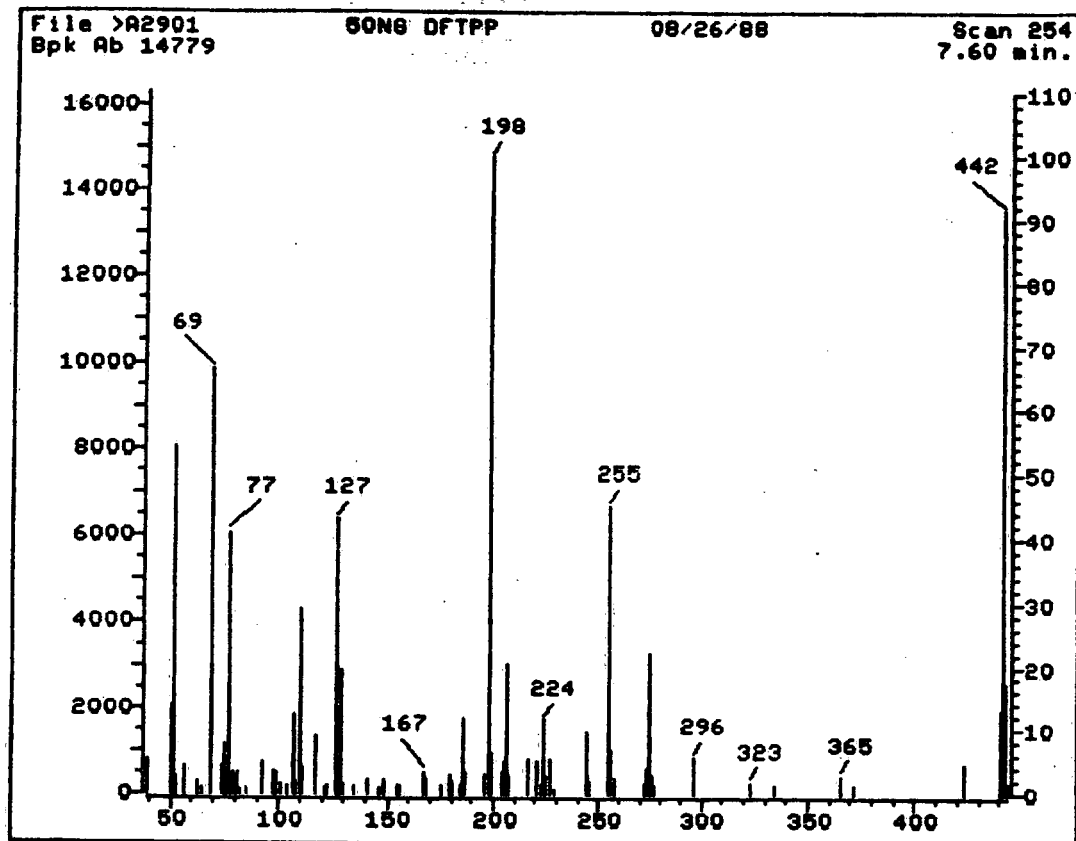


TABLE 2: METHOD PERFORMANCE DATA (QR23)

GC/MS Tuning Data - Decafluorotriphenylphosphine (DFTPP) for Base/Neutral Analysis

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	54.46	54.46	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	66.45	66.45	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	43.29	43.29	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.39	6.39	Ok
275	10-30% of mass 198	22.05	22.05	Ok
365	Greater than 1% of mass 198	2.77	2.77	Ok
441	0-100% of mass 443	13.28	76.06	Ok
442	Greater than 40% of mass 198	91.53	91.53	Ok
443	17-23% of mass 442	17.46	19.08	Ok

Injection Date: 08/26/88

Analyst: DWA

Injection Time: 17:26

Processor: DWA

Run No: &gt;A2901

QC Batch: QMC1146

Spectrum No: \_\_\_\_\_

**OHM**

O.H. Mathews Corp.  
16406 U.S. Route 224 East  
Findlay, Ohio 45839-0551  
419-423-3526

**CHAIN-OF-CUSTODY RECORD**No **40068**

PROJECT LOCATION

Newark, NJ

NAME OF CLIENT

USEPA Region I

PROJECT TELEPHONE NO

201-589-0766

PROJECT NUMBER

5359 E

ITEM NUMBER	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINERS	DESCRIPTION	TRANSFER NUMBER & CHECK						
				1	2	3	4	5	6	7
1	4529-36	2-1qt. jars	CLEAR YELLOW LIQUID - <del>MATERIAL</del> <del>FROM</del> COMPOSITE OF LIQUID IN FOUR TANKS ON SITE - 8-24-88 1530 JC  3- DAY TURN AROUND (Results Monday 8-29-88)	✓						

Person Responsible for sample

T. WANCHIK OHM

Affiliation

Date

8/24

Time

1500

TRANSFER  
NUMBERITEM  
NUMBERTRANSFERS  
RELINQUISHED BY

ACCEPTED BY

DATE

TIME

1

1

Arbore

Larry S. S. 8/25

1500

Purpose of analysis (use back of front sheet if necessary)

AQUEOUS  
DISPOSAL

ANALYSIS

(WASTEWATER  
TREATMENT)